



312 File Number: **SATLOA2017052400079**

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## Filing Description

Question	Response
Description	Galaxy 14 Replacement at 125 WL

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**Satellite  
Information**

Question	Response
Select Orbit Type	GSO
Space Station or Satellite Network Name	Galaxy 14R
Estimated Lifetime of Satellite(s) From Date of Launch	20 Years
Will the space station(s) operate on a Common Carrier basis?	No

## Operating Frequency Bands (9)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		13750.0 MHz -14000.0 MHz	Receive
Fixed-Satellite Service		27500.0 MHz -29100.0 MHz	Receive
Fixed-Satellite Service		29250.0 MHz -30000.0 MHz	Receive
Fixed-Satellite Service		3700.0 MHz -4200.0 MHz	Transmit
Fixed-Satellite Service		10950.0 MHz -11200.0 MHz	Transmit
Fixed-Satellite Service		19700.0 MHz -20200.0 MHz	Transmit
Fixed-Satellite Service		5925.0 MHz -6725.0 MHz	Receive
Fixed-Satellite Service		11450.0 MHz -11700.0 MHz	Transmit
Fixed-Satellite Service		17800.0 MHz -19300.0 MHz	Transmit

## Orbital Information For Geostationary Satellites

Section	Question	Response
<b>Orbital Longitude Information</b>	Orbital Longitude	125.0 degrees
	Hemisphere of Orbital Longitude	W
<b>Longitudinal Tolerance or East /West Station-Keeping</b>	Toward West	0.05 degrees
	Toward East	0.05 degrees
<b>Inclination Excursion or North /South Station-Keeping Tolerance</b>	Inclination Excursion or North /South Station-Keeping Tolerance	0.1 degrees
<b>Antenna Axis Attitude Accuracy</b>	Roll	0.1 degrees
	Pitch	0.1 degrees
	Yaw	0.1 degrees

## Receiving Beams 1:

Question	Response
Beam ID	ASLU
Receive Beam Frequency	27504.0 MHz -29088.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	19.0 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-76.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	United States

## Receiving Beams 2:

Question	Response
Beam ID	ASLV
Receive Beam Frequency	29254.0 MHz -29995.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees

Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	19.0 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-76.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	United States

### Receiving Beams 3:

Question	Response
Beam ID	ASRU
Receive Beam Frequency	27504.0 MHz -29088.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	19.0 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-76.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	United States

### Receiving

## Beams 4:

Question	Response
Beam ID	ASRV
Receive Beam Frequency	29254.0 MHz -29995.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	19.0 dB/K
Min. Saturation Flux Density	-101.9 dBW/m2
Max. Saturation Flux Density	-76.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	United States

## Receiving Beams 5:

Question	Response
Beam ID	CAHU
Receive Beam Frequency	5927.0 MHz -6703.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No

Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	4.8 dB/K
Min. Saturation Flux Density	-106.1 dBW/m2
Max. Saturation Flux Density	-78.1 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	The United States including Alaska and Hawaii

**Receiving Beams 6:**

Question	Response
Beam ID	CAVU
Receive Beam Frequency	5927.0 MHz -6703.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	4.8 dB/K
Min. Saturation Flux Density	-106.1 dBW/m2
Max. Saturation Flux Density	-78.1 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	The United States including Alaska and Hawaii

**Receiving Beams 7:**

Question	Response
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Beam ID	CHLU
Receive Beam Frequency	5926.25 MHz -5927.25 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-80.0 dBW/m2
Max. Saturation Flux Density	-79.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

**Receiving Beams 8:**

Question	Response
Beam ID	CMD
Receive Beam Frequency	6424.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No

Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-90.0 dBW/m2
Max. Saturation Flux Density	-89.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

**Receiving Beams 9:**

Question	Response
Beam ID	CPLU
Receive Beam Frequency	6424.0 MHz -6425.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-99.0 dB/K
Min. Saturation Flux Density	-80.0 dBW/m2
Max. Saturation Flux Density	-79.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

**Receiving Beams 10:**

Question	Response
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Beam ID	KSHU
Receive Beam Frequency	13754.0 MHz -13996.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
G/T at Max. Gain Point	18.1 dB/K
Min. Saturation Flux Density	-100.9 dBW/m2
Max. Saturation Flux Density	-75.9 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	The United States including Alaska and Hawaii

**Receiving  
Beams 11:**

Question	Response
Beam ID	KSVU
Receive Beam Frequency	13754.0 MHz -13996.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees

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G/T at Max. Gain Point	18.1 dB/K
Min. Saturation Flux Density	-100.9 dBW/m <sup>2</sup>
Max. Saturation Flux Density	-75.9 dBW/m <sup>2</sup>
Co- or Cross Polar Mode	C
Service Area Description	The United States including Alaska and Hawaii

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## Receiving Channels (43)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
AU07	125.0	28340.5	Service Link
AU08	125.0	28469.5	Service Link
AU10	125.0	29316.5	Service Link
AU11	125.0	29445.5	Service Link
AU12	125.0	29574.5	Service Link
AU13	125.0	29703.5	Service Link
CU12	36.0	6385.0	Service Link
CMD1	1.0	5926.75	TT&C
CMD2	1.0	6424.5	TT&C
CU01	36.0	5945.0	Service Link
CU02	36.0	5985.0	Service Link
CU03	36.0	6025.0	Service Link
CU04	36.0	6065.0	Service Link
CU05	36.0	6105.0	Service Link
AU01	125.0	27566.5	Service Link
AU02	125.0	27695.5	Service Link
AU03	125.0	27824.5	Service Link
AU14	125.0	29832.5	Service Link
AU15	96.0	29947.0	Service Link
CU06	36.0	6145.0	Service Link
CU07	36.0	6185.0	Service Link
CU08	36.0	6225.0	Service Link
CU09	36.0	6265.0	Service Link
CU10	36.0	6305.0	Service Link

<b>CU11</b>	36.0	6345.0	Service Link
<b>AU04</b>	125.0	27953.5	Service Link
<b>AU05</b>	125.0	28082.5	Service Link
<b>AU09</b>	125.0	28598.5	Service Link
<b>KU01</b>	96.0	13802.0	Service Link
<b>KU02</b>	84.0	13896.0	Service Link
<b>KU03</b>	54.0	13969.0	Service Link
<b>AU06</b>	125.0	28211.5	Service Link
<b>AU23</b>	36.0	29070.0	Service Link
<b>AU22</b>	125.0	28985.5	Service Link
<b>AU21</b>	125.0	28856.5	Service Link
<b>AU20</b>	125.0	28727.5	Service Link
<b>CU31</b>	36.0	6685.0	Service Link
<b>CU30</b>	36.0	6645.0	Service Link
<b>CU29</b>	36.0	6605.0	Service Link
<b>CU28</b>	36.0	6565.0	Service Link
<b>CU27</b>	36.0	6525.0	Service Link
<b>CU26</b>	36.0	6485.0	Service Link
<b>CU25</b>	36.0	6445.0	Service Link

## Transmitting Beams 1:

Question	Response
Beam ID	ALVD
Transmit Beam Frequency	19701.987 MHz -19702.013 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-32.0 dBW/Hz
Max. Transmit EIRP	12.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-118.0	-118.0	-118.0	-118.0	-118.0

## Transmitting Beams 2:

Question	Response
Beam ID	ASLD
Transmit Beam Frequency	17804.0 MHz -19295.0 MHz

Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-16.0 dBW/Hz
Max. Transmit EIRP	64.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	UNITED STATES

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> ) /BW:	* 5° - 10° (dBW/m <sup>2</sup> ) /BW:	* 10° - 15° (dBW/m <sup>2</sup> ) /BW:	* 15° - 20° (dBW/m <sup>2</sup> ) /BW:	* 20° - 25° (dBW/m <sup>2</sup> ) /BW:	* 25° - 90° (dBW/m <sup>2</sup> ) /BW:
<b>1.0 MHz</b>	-118.0	-118.0	-118.0	-118.0	-118.0	-118.0

### Transmitting Beams 3:

Question	Response
Beam ID	ASLE
Transmit Beam Frequency	19704.0 MHz -20187.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees



Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-16.0 dBW/Hz
Max. Transmit EIRP	64.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	United States

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> ) /BW:	* 5° - 10° (dBW/m <sup>2</sup> ) /BW:	* 10° - 15° (dBW/m <sup>2</sup> ) /BW:	* 15° - 20° (dBW/m <sup>2</sup> ) /BW:	* 20° - 25° (dBW/m <sup>2</sup> ) /BW:	* 25° - 90° (dBW/m <sup>2</sup> ) /BW:
<b>1.0 MHz</b>	-118.0	-118.0	-118.0	-118.0	-118.0	-118.0

### Transmitting Beams 4:

Question	Response
Beam ID	ASRD
Transmit Beam Frequency	17804.0 MHz -19295.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-16.0 dBW/Hz

Max. Transmit EIRP	64.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	UNITED STATES

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> ) /BW:	* 5° - 10° (dBW/m <sup>2</sup> ) /BW:	* 10° - 15° (dBW/m <sup>2</sup> ) /BW:	* 15° - 20° (dBW/m <sup>2</sup> ) /BW:	* 20° - 25° (dBW/m <sup>2</sup> ) /BW:	* 25° - 90° (dBW/m <sup>2</sup> ) /BW:
<b>1.0 MHz</b>	-118.0	-118.0	-118.0	-118.0	-118.0	-118.0

### Transmitting Beams 5:

Question	Response
Beam ID	ASRE
Transmit Beam Frequency	19704.0 MHz -20187.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-16.0 dBW/Hz
Max. Transmit EIRP	64.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	UNITED STATES

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>1.0 MHz</b>	-118.0	-118.0	-118.0	-118.0	-118.0	-118.0

## Transmitting Beams 6:

Question	Response
Beam ID	CAHD
Transmit Beam Frequency	3702.0 MHz -4178.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-29.9 dBW/Hz
Max. Transmit EIRP	49.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	UNITED STATES

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )	(dBW/m <sup>2</sup> )
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-152.0	-149.5	-147.0	-144.5	-142.0	-142.0

## Transmitting Beams 7:

Question	Response
Beam ID	CAVD
Transmit Beam Frequency	3702.0 MHz -4178.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-29.9 dBW/Hz
Max. Transmit EIRP	49.5 dBW
Co- or Cross Polar Mode	C
Service Area Description	UNITED STATES

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-152.0	-149.5	-147.0	-144.5	-142.0	-142.0

## Transmitting Beams 8:

Question	Response
Beam ID	CLHD
Transmit Beam Frequency	4199.737 MHz -4199.763 MHz

Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-37.8 dBW/Hz
Max. Transmit EIRP	6.2 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> /BW):	* 5° - 10° (dBW/m <sup>2</sup> /BW):	* 10° - 15° (dBW/m <sup>2</sup> /BW):	* 15° - 20° (dBW/m <sup>2</sup> /BW):	* 20° - 25° (dBW/m <sup>2</sup> /BW):	* 25° - 90° (dBW/m <sup>2</sup> /BW):
<b>4.0 kHz</b>	-152.1	-149.5	-147.0	-144.5	-142.0	-142.0

### Transmitting Beams 9:

Question	Response
Beam ID	KLRD
Transmit Beam Frequency	11450.987 MHz -11451.013 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees

Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-33.0 dBW/Hz
Max. Transmit EIRP	11.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
4.0 kHz	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0

### Transmitting Beams 10:

Question	Response
Beam ID	KSHD
Transmit Beam Frequency	10950.0 MHz -11198.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-15.6 dBW/Hz

Max. Transmit EIRP	62.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	UNITED STATES

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> ) /BW:	* 5° - 10° (dBW/m <sup>2</sup> ) /BW:	* 10° - 15° (dBW/m <sup>2</sup> ) /BW:	* 15° - 20° (dBW/m <sup>2</sup> ) /BW:	* 20° - 25° (dBW/m <sup>2</sup> ) /BW:	* 25° - 90° (dBW/m <sup>2</sup> ) /BW:
<b>4.0 kHz</b>	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0

### Transmitting Beams 11:

Question	Response
Beam ID	KSHE
Transmit Beam Frequency	11454.0 MHz -11690.0 MHz
Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-15.6 dBW/Hz
Max. Transmit EIRP	62.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	UNITED STATES

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0</b>	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0
<b>kHz</b>						

## Transmitting Beams 12:

Question	Response
Beam ID	KSVD
Transmit Beam Frequency	10950.0 MHz -11198.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-15.6 dBW/Hz
Max. Transmit EIRP	62.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	UNITED STATES

## Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0</b>	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0
<b>kHz</b>						



## Transmitting Beams 13:

Question	Response
Beam ID	KSVE
Transmit Beam Frequency	11454.0 MHz -11690.0 MHz
Beam Type	Fixed
Polarization	V
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	90.0 degrees
Max. Transmit EIRP Density	-15.6 dBW/Hz
Max. Transmit EIRP	62.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	UNITED STATES

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-150.0	-147.5	-145.0	-142.5	-140.0	-140.0

## Transmitting Beams 14:

Question	Response
Beam ID	TGHD
Transmit Beam Frequency	4197.0 MHz -4199.8 MHz

Beam Type	Fixed
Polarization	H
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	0.0 degrees
Max. Transmit EIRP Density	-43.3 dBW/Hz
Max. Transmit EIRP	13.7 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

### Max. Power Flux Density

	* 0° - 5° (dBW/m <sup>2</sup> /BW):	* 5° - 10° (dBW/m <sup>2</sup> /BW):	* 10° - 15° (dBW/m <sup>2</sup> /BW):	* 15° - 20° (dBW/m <sup>2</sup> /BW):	* 20° - 25° (dBW/m <sup>2</sup> /BW):	* 25° - 90° (dBW/m <sup>2</sup> /BW):
<b>4.0 kHz</b>	-162.0	-159.0	-157.0	-154.5	-152.0	-152.0

### Transmitting Beams 15:

Question	Response
Beam ID	THLD
Transmit Beam Frequency	4197.0 MHz -4199.8 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees

Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-45.1 dBW/Hz
Max. Transmit EIRP	11.9 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0 kHz</b>	-162.0	-159.0	-157.0	-154.5	-152.0	-152.0

### Transmitting Beams 16:

Question	Response
Beam ID	TPLD
Transmit Beam Frequency	4197.0 MHz -4199.8 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	dBi
Antenna Pointing Error	0.19 degrees
Antenna Rotational Error	0.34 degrees
Polarization Switchable	No
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-41.6 dBW/Hz

Max. Transmit EIRP	15.4 dBW
Co- or Cross Polar Mode	C
Service Area Description	GLOBAL

### Max. Power Flux Density

	* 0° - 5°	* 5° - 10°	* 10° - 15°	* 15° - 20°	* 20° - 25°	* 25° - 90°
*	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>	(dBW/m <sup>2</sup>
BW:	/BW):	/BW):	/BW):	/BW):	/BW):	/BW):
<b>4.0</b>	-162.0	-159.5	-157.0	-154.5	-152.0	-152.0
<b>kHz</b>						

## Transmitting Channels (41)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
<b>KD06</b>	72.0	11642.0	Service Link
<b>AD02</b>	125.0	17995.5	Service Link
<b>AD03</b>	125.0	18124.5	Service Link
<b>AD04</b>	125.0	18253.5	Service Link
<b>AD05</b>	125.0	19766.5	Service Link
<b>AD06</b>	125.0	19895.5	Service Link
<b>AD07</b>	125.0	20024.5	Service Link
<b>AD08</b>	84.0	20133.0	Service Link
<b>CD01</b>	36.0	3720.0	Service Link
<b>ULPC</b>	0.025	4199.75	TT&C
<b>KD01</b>	72.0	10986.0	Service Link
<b>KD02</b>	84.0	11068.0	Service Link
<b>KD03</b>	84.0	11156.0	Service Link
<b>KD04</b>	72.0	11490.0	Service Link
<b>ULPK</b>	0.025	11451.0	TT&C
<b>TLM1</b>	0.5	4197.75	TT&C
<b>TLM2</b>	0.5	4198.25	TT&C
<b>TLM3</b>	0.5	4198.75	TT&C
<b>TLM4</b>	0.5	4199.25	TT&C
<b>KD05</b>	72.0	11566.0	Service Link
<b>CD12</b>	36.0	4160.0	Service Link
<b>CD02</b>	36.0	3760.0	Service Link
<b>CD03</b>	36.0	3800.0	Service Link
<b>CD04</b>	36.0	3840.0	Service Link

<b>CD05</b>	36.0	3880.0	Service Link
<b>CD06</b>	36.0	3920.0	Service Link
<b>AD16</b>	72.0	19259.0	Service Link
<b>AD15</b>	125.0	19156.5	Service Link
<b>AD14</b>	125.0	19027.5	Service Link
<b>AD13</b>	125.0	18898.5	Service Link
<b>AD12</b>	125.0	18769.5	Service Link
<b>AD11</b>	125.0	18640.5	Service Link
<b>AD10</b>	125.0	18511.5	Service Link
<b>CD07</b>	36.0	3960.0	Service Link
<b>CD08</b>	36.0	4000.0	Service Link
<b>CD09</b>	36.0	4040.0	Service Link
<b>CD10</b>	36.0	4080.0	Service Link
<b>CD11</b>	36.0	4120.0	Service Link
<b>ULPA</b>	0.025	19702.0	TT&C
<b>AD01</b>	125.0	17866.5	Service Link
<b>AD09</b>	125.0	18382.5	Service Link

## Certification Questions

Question	Response
Are the applicable service area coverage requirements of 25.143(b)(2) (ii) and (iii), or 25.144(a)(3)(i), or 25.145 (c)(1) and (2), or 25.146(i)(1) and (2), or 25.148(c), or 25.225 met?	N/A
Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met?	Yes
Are the cessation of emissions requirements of 25.207 met?	Yes
Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	Yes
For NGSO applications, are the applicable equivalent-power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	N/A
Are the applicable full-frequency-reuse requirements of 25.210 met?	Yes
If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)?	

## Attachments

File Name	Beam	Field	Attachment Type	Description
<u><a href="#">Galaxy 14R Beams May 2017.mdb</a></u>		GSO Antenna Gain Contour Data	GIMS file (*.mdb)	GXT Files for Galaxy 14R Beams

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